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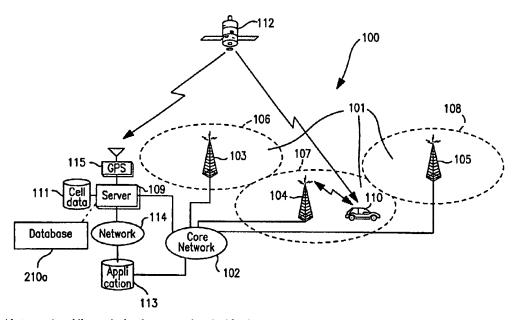
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(54) Title: MOBILE TERMINAL AND SYSTEM AND METHOD FOR DETERMINING THE GEOGRAPHIC LOCATION OF A MOBILE TERMINAL



(57) Abstract: A mobile terminal and system and method for determining the geographic location of the mobile terminal. A current cell identification number is determined for a cell in which the mobile terminal is located. The geographic location of the mobile terminal is determined based on data including at least one geographic position stored in a database and associated in the database with data representing the current cell identification number. The database may be updated with the geographic location and the current cell identification number.

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a. classif IPC 7	HO4Q7/38			
According to	International Patent Classification (IPC) or to both national classificat	tion and IPC		
B. FIELDS				
	cumentation searched (classification system followed by classification H04Q	n symbols)		
	ion searched other than minimum documentation to the extent that su			
Electronic da	ata base consulted during the International search (name of data bas	e and, where practical, search terms used)		
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of the rele	evant passages	Relevant to claim No.	
Y	EP 0 744 727 A (HIGHWAYMASTER COMMUNICATIONS,INC.) 27 November 1996 (1996-11-27) column 10, line 35 -column 11, li claims 30-32; figures 1,2,6	ne 44;	1,13,24, 37,47	
A	*Idem*	-/	2-12, 14-23, 25-36, 38-46, 48-62	
V Fun	ther documents are listed in the continuation of box C.	X Patent family members are listed	In annex.	
		K.		
"A" docum consi "E" earlier filing "L" docum which citatic "O" docum other "P" docum later	ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) nent referring to an oral disclosure, use, exhibition or means nent published prior to the international filing date but than the priority date claimed	"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
	e actual completion of the international search	Date of malling of the International se	arch report	
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Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Danielidis, S		

INTERNATIONAL SEARCH REPORT

Interional Application No PCT/US 01/49713

C (Coot)	\ DOOLUGE	PCT/US 01/49713
Category *	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Υ	US 6 115 611 A (KIMOTO ET AL.) 5 September 2000 (2000-09-05) abstract; figures 7,9,10,37,48 column 27, line 63 -column 29, line 57 column 33, line 1 - line 15 column 33, line 30 -column 34, line 41	1,13,24, 37,47
A	Column 33, Trile 30 -Column 34, Trile 41	2-12, 14-23, 25-36, 38-46, 48-62
4	US 5 519 760 A (BORKOWSKI ET AL.) 21 May 1996 (1996-05-21) abstract; figures 1-4 column 2, line 22 - line 48	1,13,24, 37,47
•	US 5 408 683 A (ABLAY ET AL.) 18 April 1995 (1995-04-18) abstract; figures 2-48 column 8, line 1 - line 11	1,13,24, 37,47
	US 6 111 539 A (MANNINGS ET AL.) 29 August 2000 (2000-08-29) abstract; figures 1,4,6 column 5, line 46 - line 64 column 11, line 28 - line 62	1,13,24, 37,47
	WO 96 36193 A (TELECOM FINLAND OY.) 14 November 1996 (1996-11-14) abstract; figure 1	1,13,24, 37,47

INTERNATIONAL SEARCH REPORT

formation on patent family members

Intermonal Application No PCT/US 01/49713

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 744727		27-11-1996	US	5155689 A	13-10-1992
LI /44/6/	^	27-11-1990	EP	0744727 A2	
			AT	192597 T	27-11-1996
					15-05-2000
			DE	69132158 D1	08-06-2000
			ΕP	0501058 A2	02-09-1992
			NO	912516 A ,B,	20-01-1992
			NO	963257 A	20-01-1992
•			US	5884221 A	16-03-1999
			US	6148202 A	14-11-2000
			US	5398190 A	14-03-1999
			US	5513111 A	30-04-1996
			US	5734981 A	31-03-1998
			US	5519621 A	21-05-1996
			ÜS	5652707 A	29-07-1997
			ÜS	5832394 A	03-11-1998
			US	5299132 A	29-03-1994
				2732137 H	
US 6115611	A	05-09-2000 	JP	10013961 A	16-01-1998
US 5519760	Α	21-05-1996	CA	2169955 A1	28-12-199
			EP	0714589 A1	05-06-1996
			JP	9502333 T	04-03-1997
			WO	9535636 Al	28-12-199
US 5408683	Α	18-04-1995	NONE		
ŲS 6111539	A	29-08-2000	AU	684228 B2	04-12-1997
,	••		AU	3393195 A	22-03-1996
			AŬ	695816 B2	20-08-1998
			AU	5538998 A	23-04-1998
			CA	2198886 A1	07-03-1996
			DE	69506563 D1	21-01-1999
			DE	69506563 T2	
			DK		06-05-1999
				777863 T3	16-08-1999
			EP	1085345 A1	21-03-2001
			EP	0777863 A1	11-06-1997
			EP	0837341 A1	22-04-1998
			ES	2126931 T3	01-04-1999
			FI	970848 A	28-02-1997
			MO	9607110 A1	07-03-1996
			JP	10505420 T	26-05-1998
			NO	970940 A	28-02-1997
			NZ	292210 A	28-07-1998
			NZ	329889 A	28-05-1999
			US	6169515 B1	02-01-2001
WO 9636193	A	14-11-1996	FI	952280 A	11-11-1996
	,,	1. 11 1550	ĀŪ	5651096 A	29-11-1996
			EP	0779013 A1	
			WO	9636193 A1	18-06-1997 14-11-1996
			TATE #	90.50 (4 S A I	14-11-1446